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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Julien Alistair Brown, et al.

Application No.: 10/620,533

Filing Date: July 16, 2003

For: PHENYLALANINE ENAMIDE DERIVATIVES

Confirmation No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

DATE OF DEPOSIT:

September 18, 2003

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Elizabeth A. McLoud

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date

of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:
- ☐ Certification in Accordance with § 1.97(e) is attached; or
- ☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.
- ☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:
- ☐ Certification in Accordance with § 1.97(e) is attached;
- or
- ☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.
- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).
- ☒ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

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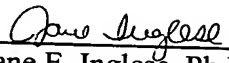
EXCEPT THAT:

- ☐ In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☐ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
- ☐ Copies of references [list as appropriate] listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. _____, filed _____.

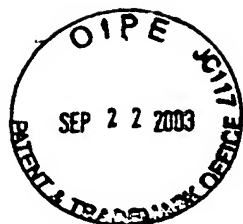
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- ☐ The relevance of those listed references which are not in the English language is as follows:
- ☒ There are no listed references which are not in the English language.

Date: September 18, 2003


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Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Docket No. CELL-0271/PA 514	Application No. 10/620,533
		Applicant Julien Alistair Brown, et al.	
		Filing Date July 16, 2003	Group Not Yet Assigned
		Confirmation No. Not Yet Assigned	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	1	Abraham, W.M. et al., " α_4 -Integrins Mediate Antigen-Induced Late Bronchial Responses and Prolonged Airway Hyperresponsiveness in Sheep," <i>J. Clin. Invest.</i> , 1994 , <i>93</i> , 776-787	
	2	Berlin, C. et al., " $\alpha_4\beta_7$ Integrin Mediates Lymphocyte Binding to the Mucosal Vascular Addressin MAdCAM-1," <i>Cell</i> , 1993 , <i>74</i> , 185-195	
	3	Binns, R.M. et al., "The Role of E-Selectin in Lymphocyte and Polymorphonuclear Cell Recruitment into Cutaneous Delayed Hypersensitivity Reactions in Sensitized Pigs," <i>J. Immunol.</i> , 1996 , <i>157</i> , 4094-409	
	4	Birskin, M.J., et al., "Structural requirements for mucosal vascular addressin binding to its lymphocyte receptor $\alpha_4\beta_7$," <i>J. Immunol.</i> , 1996 , <i>156</i> , 719-726	
	5	Brooks, Peter C., et al., "Antiintegrin $\alpha v\beta_3$ blocks human breast cancer growth and angiogenesis in human skin," <i>J. Clin. Invest.</i> , 1995 , <i>96</i> , 1815-1822	
	6	Cardarelli, P.M. et al., "Cyclic RGD Peptide Inhibits $\alpha_4\beta_7$ Interaction with Connecting Segment 1 and Vascular Cell Adhesion Molecule," <i>J. Biol. Chem.</i> , 1994 , <i>269</i> (28), 18668-18673	
	7	Erle, D.J., et al., "Expression and function of the MadCAM-1 receptor, integrin $\alpha_4\beta_7$, on human leukocytes," <i>J. Immunol.</i> , 1994 , <i>153</i> , 517-528	
	8	Ferguson, T.A. et al., "Two integrin-binding peptides abrogate T cell-mediated immune responses <i>in vivo</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , 1991 , <i>88</i> , 8072-8076	
	9	Hammes, H., et al., "Subcutaneous injection of a cyclic peptide antagonist of vitronectin receptor-type integrins inhibits retinal neovascularization," <i>Nature Medicine</i> , 1996 , <i>2</i> , 529-533	
	10	Hesterberg, P.E., et al., "Rapid resolution of chronic colitis in the cotton-top tamarin with an antibody to a gut-homing integrin $\alpha_4\beta_7$," <i>Gastroenterol</i> , 1996 , <i>111</i> , 1373-1380	
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	11	Hodivala-Dilke, K.M., " β 3-integrin-deficient mice are a model for glanzmann thrombasthenia showing placental defects and reduced survival," <i>J. Clin. Invest.</i> , 1999 , 103(2), 229-238	
	12	Holzmann, B., et al., "Peyer's patch-specific lymphocyte homing receptors consist of a VLA-4-like α chain associated with either of two integrin β chains, one of which is novel," <i>EMBO J.</i> , 1989 , 8(6), 1735-1741	
	13	Humphries, M.J. et al., "Mechanisms of VCAM-1 and fibronectin binding to integrin $\alpha_4\beta_1$: implications for integrin function and rational drug design," <i>Ciba Foundation Symposium</i> , 1995 , 189, 177-194	
	14	Issekutz, T.B., "Inhibition of Lymphocyte Endothelial Adhesion and In Vivo Lymphocyte Migration to Cutaneous Inflammation by TA-3, a New Monoclonal Antibody to Rat LFA-1," <i>J. Immunol.</i> , 1992 , 149(10), 3394-3402	
	15	Li, Z. et al., "Effect of an anti-Mo1 MAb on ozone-induced airway inflammation and airway hyperresponsiveness in dogs," <i>Am. J. Physiol.</i> , 1992 , 263(6 Pt 1), L723-726	
	16	Marlin, S.D. et al., "LFA-1 Immunodeficiency Disease," <i>J. Exp. Med.</i> , 1986 , 164, 855-867	
	17	Mitjans, F., et al., "An anti- α_v -integrin antibody that blocks integrin function inhibits the development of a human melanoma in nude mice," <i>J. Cell Science</i> , 1995 , 108, 2825-2838	
	18	Newham, P., et al., "Integrin adhesion receptors: structure, function and implications for biomedicine," <i>Molecular Medicine Today</i> , 1996 , 304-313	
	19	Osborne, L., "Leukoctye Adhesion to Endothelium in Inflammation," <i>Cell</i> , 1990 , 62, 3-6	
	20	Podolsky, D.K. et al., "Attenuation of Colitis in the Cotton-top Tamarin by Anti- α_4 integrin Monoclonal Antibody," <i>J. Clin. Invest.</i> , 1993 , 92, 372-380	
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	21	Shroff, H.N., et al., "Small peptide inhibitors of $\alpha_4\beta_7$ mediated MadCAM-1 adhesion to lymphocytes," <i>Biorg. Med. Chem. Letts.</i> , 1996 , 6(21), 2495-2500	
	22	Sonnenberg, A., "Integrins and their ligands," <i>Curr. Topics Microbiol. Immunol.</i> , 1993 , 184, 7-35	
	23	Springer, T.A., "Adhesion receptors of the immune system," <i>Nature</i> , 1990 , 346, 425-434	
	24	Springer, T.A., "Traffic Signals for Lymphocyte Recirculation and Leukocyte Emigration: The Multistep Paradigm," <i>Cell</i> , 1994 , 76, 301-314	
	25	Srivatsa, S.S., et al., "Selective $\alpha_v\beta_3$ integrin blockade potently limits neointimal hyperplasia and lumen stenosis following deep coronary arterial stent injury: evidence for the functional importance of integrin $\alpha_v\beta_3$ and osteopontin expression during neointima formation," <i>Cardiovascular Research</i> , 1997 , 36, 408-428	
	26	Vanderslice, P. et al., "A Cyclic Hexapeptide is a Potent Antagonist of α_4 Integrins," <i>J. Immunol.</i> , 1997 , 158, 1710-1718	
	27	Wasserman, H.H., et al., "Cyclobutenone derivatives from ethoxyacetylene," <i>J. Org. Chem.</i> , 1973 , 38(8), 1451-1455	
	28	Yang, X., "A predominant role of integrin α_4 in the spontaneous development of autoimmune diabetes in nonobese diabetic mice," <i>Proc. Natl. Acad. Sci. USA</i> , 1994 , 91, 12604-12608	
	29	Yednock, T.A., "Prevention of experimental autoimmune encephalomyelitis by antibodies against $\alpha_4\beta_1$ integrin," <i>Nature</i> , 1992 , 356, 63-66	
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U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
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	30	WO 02/068393 A1	09/06/02	PCT		

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